

Designing Powerful Professional Development

For Teachers, Administrators, and School Leaders



PUBLIC SCHOOLS OF NORTH CAROLINA

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What is Professional Development?

Professional development is the term that educators use to describe the continuing education of teachers, administrators, and other school employees.

Teachers need a wide variety of professional development opportunities. For example, a science teacher might need to attend classes to learn more about the content of the science she's teaching. In addition, she might need other types of staff development to learn better ways to teach that new science material. She might also need to learn more about classroom management techniques, how to incorporate technology into her instruction, and how to better address the needs of language minority students in her classroom.

The terms in-service education, teacher training, staff development, professional development, and human resource development are often used interchangeably. But some of these terms may have special meaning to particular groups or individuals.

Attending classes, workshops, or conferences is one way that teachers – and other school employees – learn some of what they need to know. But other types of staff development are just as important and, often, more effective than traditional sit-and-get sessions.

For example, when teachers plan lessons together or study a subject together, that's a form of staff development. A teacher who observes another teacher teach is also participating in a form of staff development. If a teacher is being coached by another teacher, that's staff development. Visiting model schools, participating in a school improvement committee, writing curriculum, keeping a journal about teaching practices – all of those can be staff development activities.

The Research on Professional Development

- **Good teachers are the key to good schools.**

Parents and students have long understood that knowledgeable, caring teachers with a wealth of teaching skills and strategies are essential to a positive school environment. The National Commission on Teaching and America's Future echoed that feeling in its 1996 report, *What Matters Most: Teaching For America's Future*, when it stated that "what teachers know and do is the most important influence on what students learn." The most direct way to improve the quality of mathematics and science education is therefore to improve the knowledge base of teachers, and to provide professional development opportunities which help teachers learn to facilitate student learning. According to Linda Darling-Hammond, educator and Executive Director of NCTAF, "At its root, achieving high levels of student understanding requires immensely skillful teaching -- and schools that are organized to support teachers' continuous learning (NCTAF, 1996).

- **Teachers need continuing education to become and remain skilled educators.**

Like other professionals, teachers have an expert knowledge base which guides their practice. Unlike other professionals, however, most teachers revise their pedagogical content knowledge -- the synthesis of their content area knowledge and general pedagogy -- in isolation. Without adequate access to the meaningful professional development programs, collegial collaboration, or feedback on their own performance, it is difficult for teachers to respond to the new mathematics and science content and theories of learning included in state and national standards.

What Matters Most (1996) explains: "If teachers are to be prepared to help their students meet the new standards being set for them, teacher preparation and professional development programs must consciously examine the expectations embodied in new curriculum frameworks and assessments and understand what they imply for teaching and for learning to teach. Then they must develop strategies that effectively help teachers learn to teach in these much more demanding ways."

According to Dennis Sparks, Executive Director of the National Staff Development Council, in *A New Vision for Staff Development* (1997), a report of the National Staff Development Council and the Association for Supervision and Curriculum Development, professional development is "a means to an end rather than an end in itself; it helps educators close the gap between current practices and the practices needed to achieve the desired outcomes. This comprehensive approach to change assures that all aspects of the system -- for example, policy, assessment, curriculum, instruction, parent involvement -- are

working together with staff development toward the achievement of a manageable set of student outcomes that the entire system values."

When these strategies are effective, professional development becomes very powerful. According to *Teachers Take Charge of their Learning*, released by the National Foundation for the Improvement of Education (1996), "opportunities to develop professionally not only benefit the individual in shaping his or her craft, but also help ensure that best practice is everyday practice, and that the most effective approaches are used."

- **Teachers understand and respond to the power of effective professional development.**

Most teachers are pursuing very clear goals when they seek professional development opportunities. According to the National Federation for the Improvement of Education, 73% of teachers are motivated by their interest in improving student achievement, 55% are aiming to improve their teaching skills, and 34% are seeking a broader knowledge base. Professional development programs which are connected directly to teachers' work with their students, organized around problem solving, informed by research, and sustained over time are most successful in helping teachers transform their teaching to achieve those goals. *What Matters Most* (1996) reports, "Over and over again, teachers attest to the usefulness of these kinds of opportunities for transforming their teaching -- and to their scarcity in most school settings."

- **Effective professional development programs are driven by a common vision of student and teacher learning in an academic community.**

Driven by a clear, well-defined image of effective classroom instruction, *Designing Professional Development for Teachers of Science and Mathematics* (2002) suggests that effective professional development programs must address the pedagogical content knowledge of mathematics and science educators and "parallel [the characteristics of] effective learning experiences for students." The guide also identifies seven principles of effective professional development for mathematics and science educators which expand on these core beliefs: "Effective professional development experiences are learning and teaching; provide opportunities for teachers to build their knowledge and skills and broaden their teaching approaches; use or model with teachers the strategies teachers will use with their students; build a learning themselves and community; support teachers to serve in leadership roles; provide links to other parts of the educational system; and are continuously assessing making improvements to ensure positive impact on teacher effectiveness, student learning, leadership, and the school community."

- **Professional development increases teacher knowledge and improves student learning.**

The most compelling reason to invest in effective professional development is that *it works*. Successful professional development "not only makes teachers feel better about their practice, but also reaps learning gains for students, especially in the kinds of more challenging learning that new standards demand," according to Linda Darling-Hammond. *Designing Professional Development for Teachers of Science and Mathematics* (2002) captures this point: "Although students are not the primary clients of professional development, they are its ultimate beneficiaries. The goal of professional development is improved student learning. At the same time, student performance will not improve unless staff and organizational performance improves."

The effects of professional development are evidenced by the implementation of new teaching strategies. A recent study by the National Center for Education Statistics found that participation in professional development programs on cooperative learning, interdisciplinary problems, portfolio assessment, or technology integration led to more extensive use of those strategies in the classrooms. In short, "even no-frills staff development resulted in teachers' willingness to try new strategies to improve classroom instruction."

Trends in student achievement also support the power of professional development. *Doing What Matters Most* (1997), the NCTAF follow-up to *What Matters Most* (1996), found that states which made substantial investments in professional development during the 1990s have been rewarded with improved student achievement. Long-term correlation between professional development and student achievement can be seen in Minnesota, North Dakota, and Iowa, which have consistently led the nation in achievement, and which "have all had a long history of professional teacher policies, and are among the 12 states that have state professional standards boards which enacted high standards for entering teaching." In contrast, *Doing What Matters Most* reports that "state reform strategies during the 1980s that did not include substantial efforts to improve teaching have been much less successful."

- **Professional development is crucial to the positive transformation of the nation's schools.**

Many important components play into the improvement of mathematics and science education, but professional development plays a unique and central role in the reform process. According to *A New Vision for Staff Development* (1997), a report of the National Staff Development Council, professional development is "a means to an end rather than an end in itself; it helps educators close the gap between current practices and the practices needed to achieve the desired outcomes. This comprehensive approach to change assures that all aspects of the system -- for example, policy, assessment, curriculum, instruction, parent involvement -- are working together with staff development toward the

achievement of a manageable set of student outcomes that the entire system values."

What Matters Most (1996) argues simply and clearly for increased attention to professional development: "Education reform can succeed only if it is broad and comprehensive, attacking many problems simultaneously. But it cannot succeed at all if unless the conditions of teaching and teacher development change."

Designing Professional Development

A bridge, like professional development, is a critical link between where one is and where one wants to be. A bridge that works in one place almost never works in another. Each bridge requires careful design that considers its purpose, who will use it, the conditions that exist at its anchor points...and the resources required to construct it. Similarly, each professional development program...requires a careful and unique design.

Susan Loucks-Horsley

Too often we expect dramatic changes from professional development efforts that educators and stakeholders create as a result of school improvement planning. But, in many cases, professional development efforts are doomed from the beginning because they 1) are designed and implemented in systems that don't support sustained adult learning, and 2) bear little relationship to school improvement plans. Attention to the NSDC standard of "systems thinking" gives us insight about how to sustain a productive relationship between school planning, staff development, and school structures that should support both.

In many cases, school improvement plans will never "get to first base" because the school schedule, policies, or operations will not support the long-term, focused, analytical efforts necessary to first increase the quality of learning for adults. School change is hardly noticed, school improvement plans feel like "this year's new thing," and teachers and administrators suffer from chronic "projectitus."

Professional development — the core of school improvement — instead becomes the dreaded "in-service" and adults see no connection between their professional development and everyday classroom needs. Teachers, parents, and administrators begin to lose hope in the school planning process and the critical role adult learning plays in meaningful school improvement.

Professional development efforts must closely align with school improvement plans and thrive within existing school operations and structures. This systems-thinking planning can be guided by the following questions:

- What are our goals for our students?
- What must we (the adults) learn in order to help our students learn?
- What is the best design for the adult learning?
- What is in place in our school that we would need to change or strengthen in order to meet our learning goals and our student goals?
- How would we know if we were achieving our goals?

As an example, a middle school improvement team determines that students need to improve their writing skills. Teachers on the team review research and best teaching practices. Through a critical self-analysis, they determine the content and teaching strategies that will assist their students. The teachers' staff development efforts are then designed in the context of their school and their school schedules.

Because there is no scheduled school day time for teams of teachers to study, practice, and examine student work, they design staff development efforts using after-school time. School administrators agree not to schedule after-school faculty meetings in order to support the teachers' desire to use that time to meet and discuss their progress and student performance.

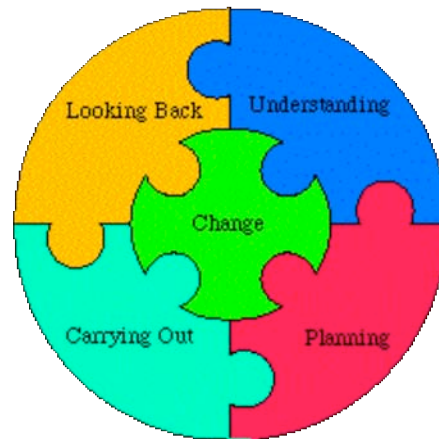
Capturing available after-school time for adult learning and discussion of student progress redirects this school schedule on adult learning and school improvement. The school structure has been altered to support adult learning, resulting in a feasible situation that supports long-term improvement efforts.

Systems thinking requires this kind of focused, integrated planning. Analyze the connections between your school improvement efforts, staff development plans, and the structures that either inhibit or encourage your sustained efforts (Murphy, 2000)

FRAMEWORK FOR DESIGNING EFFECTIVE PROFESSIONAL DEVELOPMENT

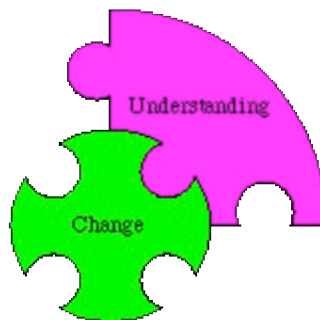
Cook and Rasmussen (1994) designed a model for identifying, understanding, planning, carrying out, & evaluating change.

FOCUSING ON AND CLARIFYING THE CHANGE



- What is the change you wish to create and/or facilitate?
- In what ways does this change relate to on-going professional development and school improvement?
- How does your design challenge relate to this change?

DEVELOPING AN UNDERSTANDING OF THE CHANGE



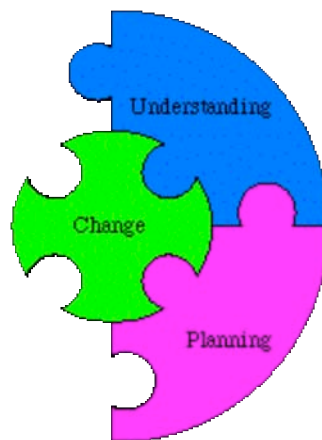
- Who, within the varying contexts, might be affected by the change? In what ways?
- What are the belief systems and assumptions about the change? How does this relate to personal and shared vision

- What questions and needs might they have regarding the change? What is their readiness for this change?
- How does this change link to other initiatives?
- Who are the potential advocates of this change? Who should be members of a design team?
- What do members of a design team (change agents and designers of professional development) need to know in order to build understanding?
- In what ways does greater understanding refine or refocus the change?

THE CHANGE AGENT'S ROLE: THINK-PAIR-SHARE

- How would you describe your role as a change agent?
- What challenges do you currently face?
- What would you like to know more about that would enable you to work more effectively in your role(s)?

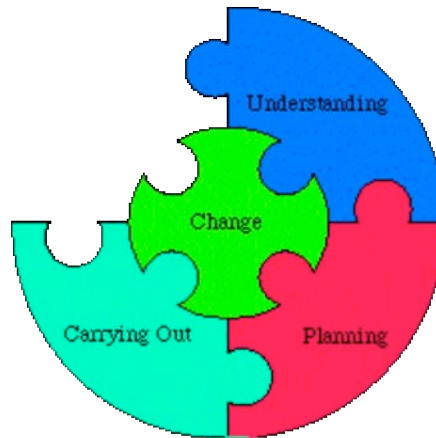
CREATING A PLAN FOR CHANGE



- What format(s) and approach(es) are used in your professional development design?
- Which formats and/or approaches might be helpful to explore in some detail? Which ones might enhance your plan, given the contexts affected by this change?

- How might the chosen formats and/or approaches be integrated and sequenced in an action plan?
- What are additional potential resources? How might other initiatives be used?
- What is your evaluation plan? Identify possible criteria for evaluating the overall design and process.

CARRYING OUT THE CHANGE PLAN

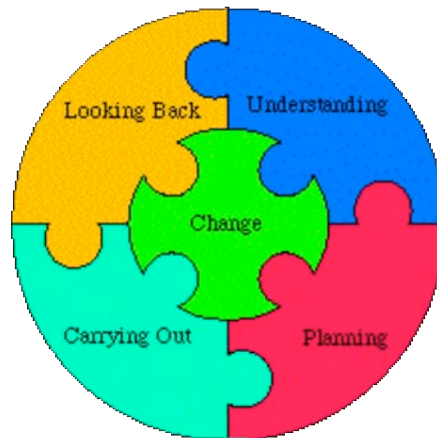


- How might an action plan be used to help manage the implementation of this change?
- How might you use the action plan in formative evaluation (to verify understanding and check for reasonable results), across appropriate contexts?

IMPLEMENTING THE FRAMEWORK

Questions and Activities to guide an organization in implementation of the framework.

Focusing on and Clarifying the Change



- What is the change you wish to create and/or facilitate?

What is the change that needs to be effected? A needs assessment should be conducted. This assessment may be formal or informal and may include such practices as focus group interviews, surveys, analysis of student data, etc. Assessment may be conducted at the personal level (teacher self-assessment) and at the organizational level.

- In what ways does this change relate to on-going professional development and school improvement?
- How does your design challenge relate to this change?

Alignment is crucial to reform. Curriculum should be aligned with professional development. Professional development should be aligned with local and state standards. As school/state improvement goals and objectives represent the consensus of the educational community as to priority needs of the organization and its stakeholders, professional development should be linked with school improvement and state improvement plans. **Everything** should be aligned with the organization's vision and mission. Alignment ensures the congruency between what we believe and how we behave. Alignment is a crucial "first step." No organization, especially public schools, have the time or resources to engage in activity not directly related to its vision, mission, and plan for growth and improvement.

Examples of Misalignment

What We Say

Teacher learning is the centerpiece of effective change

Every child, every teacher, every organization is unique

Change is long-term

Students should be independent, self-directed learners

What We Do

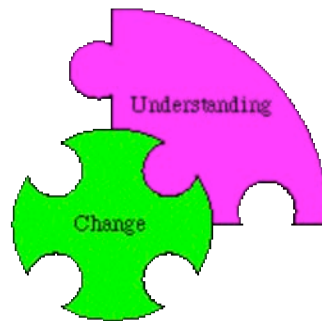
Provide a few isolated hours each school year for in-service

Offer “one size fits all” staff development

Plan one-shot workshops with no follow up

Design and implement professional development with very little if any input from the participants

Developing an Understanding of the Change



- Who, within the varying contexts, might be affected by the change? In what ways?
- What are the belief systems and assumptions about the change? How does this relate to personal and shared vision

Change does not occur within a vacuum. Likewise, the changes in professional development do not occur within a vacuum. Who might be, should be, needs to be, must be affected by the change? How do individuals or certain groups need to be affected? How do individuals or groups feel about the planned change or even the need for change? Who needs to be a part of the discussion that will generate answers to these and other questions? What is the plan that will be developed to create understanding of the change? How will you know if the plan is effective and that understanding (and more importantly, acceptance or buy-in) has occurred?

- What questions and needs might they have regarding the change? What is their readiness for this change?

Time must be spent and outlets must be created for individuals and groups to share their questions and their needs. Both questions and needs may be addressed at the individual level or, again, in focus group settings.

- How does this change link to other initiatives?

A common question is how does this change link to other initiatives or is this just another passing fad? What is the plan to show the link to other initiatives? - how, when, where, by whom?

- Who are the potential advocates of this change? Who should be members of a design team?

Effective professional development addresses specific issues in specific ways. It is not “thrown together” nor is it “cookie cutter” or part of a “passing fad.”

Effective professional development is consciously and deliberately designed. Who should design professional development? In short, a team. Consider including as part of the team potential participants, building administrators, teacher education personnel, individuals knowledgeable about how adults learn,...

- What do members of a design team (change agents and designers of professional development) need to know in order to build understanding?
- In what ways does greater understanding refine or refocus the change?

The Change Agent’s Role

- How would you describe your role as a change agent?
- What challenges do you currently face?
- What would you like to know more about that would enable you to work more effectively in your role(s)?

Who (individual or team) is the change agent? Who will monitor the professional development to make sure that it occurs as planned and make decisions related to other changes that may need to occur should the planned development prove to be ineffectual or inappropriate? How will this be done? What are known challenges and potential challenges? What is the plan to address these challenges?

Creating a Plan for Change



- What format(s) and approach(es) are used in your professional development design?

Models of Professional Development

There are innumerable models of professional development. Sparks and Loucks-Horsley (1989) identified five specific models:

1. Individually Guided
2. Observation/Assessment
3. Involvement in Curriculum Development/School Improvement Process
4. Training
5. Inquiry
6. Backmapping

Individually Guided

Activities that an individual (teacher or administrator) initiates, designs, and carries out on his/her own. This model assumes the individual is able to self-diagnose personal needs and self-prescribe a plan of action. Activities are customized to the individual learner - needs, context, learning style.

The steps to individually guided professional development would include:

1. self-assessment to determine a need
2. development of a plan including setting objectives that describe the change(s) that will result
3. designing, planning and implementing learning activities
4. assessment of mastery of objectives

Observation/Assessment

In this model, an outside observer records (written, video, audio) a taught lesson. The recorded information is analyzed usually with a focus (specific teaching behaviors). A post-observation conference is held with the observer who participates in dialogue concerning the analysis and interpretation of the collected data. An action or growth plan is developed, implemented, and evaluated through subsequent observations.

Curriculum Development/School Improvement Process

This model encourages the individual to reach for new insights and deeper understanding of critical elements of teaching and learning while engaged in either the curriculum or school improvement process.

Steps include:

1. a problem or need is identified
2. a plan of action is developed
3. new skills or knowledge needed to implement the plan are identified and plans for acquiring the new knowledge or skills are added to the existing plan
4. the plan is implemented
5. the results of the plan's implementation are evaluated

Training

Joyce and Showers (1995) define the training model as a distinction between what you should expect from a training session and what you need in terms of follow-up to enable you to help one another master what you learned in the training setting. High-quality training includes three components:

1. Understanding of the theory – A deep understanding of the conceptual base of a particular strategy, practice, or concept
2. Modeling or demonstration – review of videotape of actual implementation of a strategy
3. Practice within the workshop setting - opportunities for guided implementation such as role playing

Inquiry Model

Professional development activities based on the inquiry model begin with the identification of a need or problem. Participants measure important aspects of the need or problem and/or collect data to gain insight into how the problem might be addressed. The data is analyzed and an action plan is developed and implemented. Finally, the results of the action plan are evaluated so the new strategies can be revised or shared with others for implementation.

Backmapping

Begin with the end in mind. Too often program planning has begun with an assessment of needs. This typically results in need being expressed in terms of educator needs only and the desired end result – student achievement is overlooked. The backmapping process includes five critical steps:

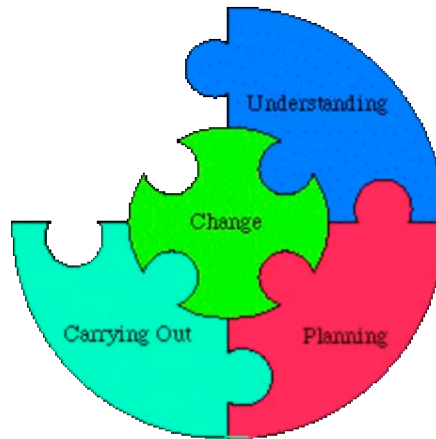
- **Step One:** Determine Student Achievement Needs
- **Step Two:** Determine Educator Needs
- **Step Three:** Study Possible Interventions and Context
- **Step Four:** Plan Program Design and Implementation
- **Step Five:** Provide Ongoing Support and Monitor Progress

Selecting a Model

Selecting an appropriate model is an important decision. The design of professional development must reflect the **knowledge** base on learning, teaching, and the nature of the subject matter. The design must suit the **context** in which the learning will take place and the teaching will occur. The design must take into account elements and **critical issues** which will affect the success of the learner – equity, diversity, organizational culture, leadership capacity, time, evaluation, public support, ... The design must reflect the different approaches and **strategies** to learning that are most appropriate for the learner given the context for learning.

- Which formats and/or approaches might be helpful to explore in some detail? Which ones might enhance your plan, given the contexts affected by this change?
- How might the chosen formats and/or approaches be integrated and sequenced in an action plan?
- What are additional potential resources? How might other initiatives be used?
- What is your evaluation plan? Identify possible criteria for evaluating the overall design and process.

Carrying Out the Change



- How might an action plan be used to help manage the implementation of this change?

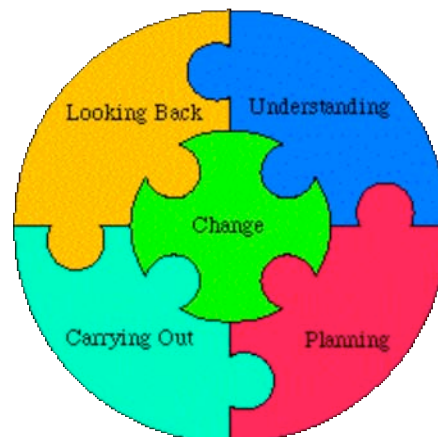
What is the purpose of the action plan? What are the critical components of the action plan? Who will monitor implementation of the action plan?

- How might you use the action plan in formative evaluation (to verify understanding and check for reasonable results), across appropriate contexts?

Again, the goal is to link or align the plan with existing practices, in this case, the teacher or administrator formative evaluation. The action plan may **be** the formative evaluation instrument or may be a part of an existing instrument or practice.

LOOKING BACK ON THE MODEL

Questions to guide an organization's review of implementation of the framework.



- How would you describe the effectiveness of your design?

- How has this design process assisted in the development of an effective design?
- How might you use evaluation results to further inform and refine your design and process?
- How might formative evaluation results be shared/reported?
- How might you support the maintenance and continuity of this design?

The importance of evaluating professional development is reflected in policy documents, numerous articles and publications, and in the daily conversation of educators. Reasons for evaluation run the gamut – “What gets measured, gets done,” “If it’s worth doing, it’s worth doing well,” “If you don’t know where you started, and where you are going, how will you know you have arrived?” The goal of staff development should be improvement – for teachers, students, and administrators. The goal of the evaluation is to provide information that is helpful in planning appropriate professional development, and documenting the value and effectiveness of professional development. Evaluation is not done simply as a “final step” to professional development. Evaluation is done to gather critical data that should be reviewed, analyzed, disaggregated, and **used**.

Creating a Context for Change

Although both the content and process of professional development are significant issues worthy of attention, the most significant contribution a leader can make to developing others is creating an appropriate context for adult learning. It is context — the programs, procedures, beliefs, expectations, and habits that constitute the norm for a given school — that plays the largest role in determining whether professional development efforts will have an impact on that school (DuFour, 2001).

In the right school context, even flawed professional development activities (such as the much-maligned single-session workshop) can serve as a catalyst for professional growth. Conversely, in the wrong school context, even programs with solid content and powerful training strategies are unlikely to be effective (DuFour, 1998).

When leaders recognize and understand how critical context is to the effectiveness of professional development, important shifts begin. The primary arena for professional development moves from workshops to the workplace. Emphasis shifts from finding the right trainers or speakers to creating opportunities for staff to work together, engage in collective inquiry, and learn from one another. The artificial distinction between teacher work and teacher learning that exists in most schools is eliminated. Opportunities for learning and growth are structured into routine practices.

The context leaders should strive to create is the collaborative culture of a professional learning community. Creating a collaborative culture has been described as "the single most important factor" for successful school improvement initiatives, "the first order of business" for those seeking to enhance their schools' effectiveness, an essential requirement of improving schools, the critical element in reform efforts, and the most promising strategy for sustained, substantive school improvement (Eastwood and Louis, 1992; Fullan, 1993; Newmann and Wehlage, 1995; and McLaughlin, 1995).

Creating the context of a collaborative culture requires more than encouraging educators to work together. The tradition of teacher isolation is too deep to be uprooted simply by offering opportunities for collegial endeavors. **Collaboration by invitation never works.** Leaders who function as staff development leaders embed collaboration in the structure and culture of their schools. Teachers' work is specifically designed to ensure that every staff member is a contributing member of a collaborative team. Creating an appropriate structure for teacher collaboration is vitally important, but also insufficient. Leaders must do more than organize teacher teams and hope for the best. They must provide the focus, parameters, and support to help teams function effectively. More specifically, leaders who are staff development leaders must:

- 1. Provide time for collaboration in the school day and school year.**
- 2. Identify critical questions to guide the work of collaborative teams.**
- 3. Ask teams to create products as a result of their collaboration.**
- 4. Insist that teams identify and pursue specific student achievement goals.**

5. Provide teams with relevant data and information.

Simply put, when educators operate within the context of a learning community, they are more likely to develop professional competence. And it is leaders who play the critical role in forging conditions that give rise to the growth of professional communities in schools (Louis, Kruse, and Raywid, 1996).

Creating a Learning Community

Professional development is about change—*change in what you know and believe about teaching and learning, and in what you can do in the classroom.*

Part of bringing about real change is creating a context or climate in which change is less difficult. According to Roland Barth, a school that has strong context for change resembles a “community of learners.” Barth describes such a learning community as **“...a place where all participants—teachers, principals, parents, and students—engage in learning and teaching. School is not a place for important people who do not need to learn and unimportant people who do. Instead it is a place where students discover, and adults rediscover, the joys, the difficulties, and the satisfactions of learning.”**

This is an exciting concept. A school that has turned itself into a community of learners is filled with daily examples of people learning from each other, sharing what they are learning, and being excited about and participating in what others are learning. These examples may include a group of teachers who together are studying how students reveal their preferences for learning through one or more of their five senses, two students trying to figure out how to catch the interest of potential readers for a story they co-authored, or the principal and a teacher reading and talking about how to compose questions that stimulate higher-order thinking. Teachers “learn by doing, reading, and reflecting (just as students do); by collaborating with other teachers; by looking closely at students and their work; and by sharing what they see” (Darling-Hammond and McLaughlin, 1995). This description of how teachers learn is corroborated by a list of sources teachers rely upon to provide the knowledge and skills that they need to be successful (Smylie, 1992). The following were the four highest-rated sources:

1. Direct experience as a teacher (learning by doing)
2. Consultation with other teachers (collaborating with other teachers)
3. Study and research pursued on one’s own (reading and reflecting)
4. Observation of other teachers (sharing what they see)

A learning community offers opportunities for you and your fellow teachers to engage in joint work (Little, 1990). This type of collaboration involves teachers in shared responsibility for important aspects of teaching. It can begin with a collective concern which prods you and your colleagues to collective investigation and leads to collective action. The concept of continual improvement assumes you will continue the examination and refinement of your skills throughout your career and that you will always be involved with your colleagues in looking for better ways to teach. Learning communities view continual improvement as a normal part of life. They expect the members of the community, you and your fellow educators, to be committed to and participate in this ongoing cycle of collective investigation and action.

Students in a learning community have before them a consistent model of lifelong learning. They see significant adults seek out learning opportunities, put substantial effort into those experiences, and enjoy the satisfaction of acquiring useful, new knowledge. This kind of thoughtful inquiry that is at the heart of a learning community provides a good example of rational, data-driven, collaborative approach to solving problems.

To support an ongoing learning community in a school:

1. Building administrators must build on the belief that all members of the school's faculty share responsibility for student learning.
2. Building administrators and teachers must spend time together on professional issues.
3. The building administrator must be a leader of learners.

For a learning program to be effective, it must have the following components:

1. A set of goals for the learning and a set of expected outcomes
2. A plan for proceeding over time
3. A set of implementation "actions"
4. A component that requires reflection and evaluation as well as revision of each major component of the design as appropriate.

Planning for Professional Development

Professional development is a continuous process of individual and collective examination of practice. It should empower individual educators and communities of educators to make complex decisions, identify and solve problems, and connect theory, practice, and student outcomes. It should also enable teachers to offer students the learning opportunities that will prepare them to meet world-class standards in given context areas and to successfully assume adult responsibilities for citizenship and work.

American Federation of Teachers

Professional Development should ensure depth of content knowledge

Knowledge of a common core of content allows communication, collaboration, and cooperation. Those who do not know content cannot teach it. A prime purpose of professional development must be deepening the content knowledge of teachers. The learning of content as a primary goal is a legitimate and necessary end of professional development.

Professional Development should provide a strong foundation in the pedagogy of particular disciplines

While knowing the content is critical, one must also know how to get students to understand it. It is possible to possess knowledge and not know how to convey that knowledge to others or engage them in ways that enable them to absorb it themselves. It is also possible to be master of specific techniques and not know when it is appropriate to use them to generate knowledge and understanding in a discipline. While some pedagogical knowledge is applicable to the teaching of all subjects, most

knowing and thinking is embedded in very specific content. One does not understand history in the same way that one understands science. Professional development should help teachers develop an understanding of the most useful ways of representing ideas of specific disciplines, the kinds of questions that help to reveal and develop understanding, and the most effective strategies to address the misconceptions that commonly arise with regard to particular content at particular developmental levels, given students with specific background experiences and prior knowledge.

Professional Development should provide more general knowledge about the teaching and learning processes and about schools as institutions

Teachers need general knowledge about teaching and learning processes. Learning cannot take place in chaos. Teachers must know how to manage a classroom full of youngsters. Teachers must know how schools work as institutions. The professional teacher who has knowledge of what is necessary for successful teaching and learning will be able to help shape the school environment and culture. Professional development should provide teachers knowledge about creating and maintaining appropriate environments, curriculum and assessment, and how cultures that support reflective and research-based practices can be built and supported.

Effective Professional Development is rooted in and reflects the best available research

The proven knowledge base should not and cannot be ignored. Research is available and is constantly developing new knowledge in all the areas related to professional development. Too often, educators make decisions based on feelings and intuition or tradition. Research-based knowledge must be applied to prepare the current and future generations of students for their future. Practice should be examined and change considered on the basis of sound research. When professional development itself models the kinds of strategies that research finds effective for learning, the ability of teachers to implement those strategies in class is strengthened.

Professional Development should contribute to measurable improvement in student achievement

Higher student achievement is the goal. Professional development that does not produce changes in practice does not support improved student performance. Professional development must be powerful enough to result in changes in schools and practice that lead to higher student achievement and higher teacher performance.

Effective Professional Development expects teachers to be intellectually engaged with ideas and resources

Teachers want to be responsible professionals and want to deliver the best possible instruction to meet students' educational needs. Teachers face, however, an increasingly diverse group of students often with the no knowledge of what will be best for individual learners. Professional development that is highly prescriptive...

Effective Professional Development provides sufficient time, support, and resources to enable teachers to master new content and pedagogy and to integrate these into their practice

Professional development does not occur in an isolated moment. It is not an event; it is a process. Sufficient time means:

Professional Development should be designed by those who will participate in it in cooperation with the experts in the field

When participants are not involved in the planning,

Effective Professional Development takes a variety of forms

Assessing and Monitoring Progress

The ultimate worth of professional development for teachers is the essential role it plays in the improvement of student learning. That means that educators must pay attention to the results of professional development on job performance, organizational effectiveness, and the success of all students. Each professional development effort should be accompanied by a well-designed evaluation plan for determining its effectiveness.

To create powerful professional development programs you must plan with results in mind. You must monitor closely with the collection of formative data, making adjustments as needed to ensure effectiveness. Evaluation cannot be an after thought. Effective professional development is under girded by strong evaluation that has been planned up.

The development of the evaluation strategy should commence at the beginning of the planning process for each professional development program. Members of an evaluation team are chosen and charged with the responsibility for evaluating each program. As a preliminary step, evaluators determine the purposes of the evaluation.

Identifying the purposes of the evaluation makes it possible to formulate the questions that will have to be answered as part of the evaluation. The evaluation team should begin to formulate these questions by engaging the stakeholders of the staff development program in dialogue about what evidence they will accept as confirmation that the desired outcomes were achieved.

After the purposes of the evaluation are determined, the evaluation team can plan the evaluation itself. The evaluation design should be based on the intended outcomes of the school-improvement effort. What is to be evaluated is guided by *why* the evaluation is being done and *how* the results are going to be used. The evaluation team can ensure the quality of the professional development program by asking questions that focus on the value of the program in achieving school-improvement goals.

Evaluation of a professional development program has two important goals: to improve the quality of the program, and to determine its overall effectiveness. Evaluation that is used to modify or improve a professional development program is called formative evaluation. Formative evaluation is done at intervals during a professional development program. Participants are asked for feedback and comments, which enable the staff developers to make mid-course corrections and do fine-tuning to improve the quality of the program. Formative evaluation helps ensure that each professional development program meets the participants' needs and expectations, is a meaningful experience, and can be translated into action in the classroom. Formative data should be collected at a minimum of two levels: participant reactions and participant learning.

Evaluation to determine the overall effectiveness of a professional development program is called summative evaluation. Summative evaluation is done at the conclusion of the program. It should be collected at three levels: educator practices, organizational changes, and student outcomes.

The first level of summative evaluation is to assess the changes in the educators as a result of participating in the professional development program. Participants are asked to describe changes in how they think, what they believe, and what they do in the classroom (Guskey & Sparks, 1991). They describe their own professional growth and evaluate the program in meeting their personal and professional goals. Such changes in participants can be determined through questionnaires, observations, interviews, self-assessment instruments, and analysis of records (such as minutes of faculty meetings) (Guskey & Sparks, 1991).

The second level of summative evaluation is to assess the ways in which the school organization has changed. This assessment is critical because research shows that organizational climate and culture strongly influence both initial and continued use of innovation (Joyce, 1990). Professional development efforts will have a greater impact on student outcomes if the organizational culture provides ongoing support for such efforts.

Effective professional development is under girded by strong evaluation that has been planned up front – that has been planned to be collected for formative and summative assessment and that has been planned across the professional development schema: context, process, content, and program quality.

Evaluating Context Factors

Context factors impact the success of professional development activities. Questions to guide the evaluation of context factors include:

- What actions demonstrate the extent of the faculty's shared responsibility for learning?
- How and when is time provided for professional development activities?
- What professional development resources are available to teachers?
- How do teachers get feedback on their performance and implementation?

Evaluating Process

Process standards refer to the “how” of staff development describing the learning processes used in the acquisition of new knowledge and skills. Process involves the use of data, evaluation, and research. Questions to guide the evaluation of process include:

- Were all stakeholder groups involved in the planning of this professional development – the planning of content, implementation, evaluation, etc.?
- Were multiple data sets reviewed to identify needs, select content, plan delivery, evaluate practices, etc.?

Evaluating Content

Evaluating content involves a review of the research evidence that supports the content of a program or innovation. The content of professional development should be research-based, relevant to the needs of the participants, and compatible with other existing practices and philosophies. Student needs and teacher needs should not be overlooked when evaluating content. Questions to guide the evaluation of content include:

- What results have been achieved when this program content was implemented with students similar (age, gender, socioeconomic status, intellect, etc.) to ours?
- What are the points of agreement between this program/practice and our beliefs, practices, policies, etc.?
- What specific student/teacher need(s) does this program content address?

Evaluating Program Quality

Program quality means how the design compares with what one knows about effective professional development activities. Typically, a well-designed training activity will include a clear and specific presentation of the theory supporting the new practices, modeling, demonstration, coaching, feedback, and practice.

Questions to guide evaluation of program quality include:

- Is this model appropriate for the intended outcomes?
- Does the program design include inquiry into how learning can be improved?
- Which model of professional development was used to design this program?

Putting it All Together

Good professional development is like a perfect curve ball- it's all in the commitment, planning, effort, and practice.

Claudette Rasmussen, Susan Hopkins & Michelle Fitzpatrick

A carefully developed, comprehensive plan centers professional development on student learning goals. Effective professional development plans cannot be written separately from school or district improvement plans. A professional development plan works best when it is embedded in school or district improvement plans and is seen as the primary strategy for achieving identified goals.

Integrated professional development may appear seamless and natural when it occurs. Like a perfectly pitched curve ball, though, it is the thought, effort and hours of planning and practice that produce successful results. This kind of planning begins with the end in mind. The end is improved student learning and improved teacher performance (Rasmussen, Hopkins, & Fitzpatrick, 2004).

The following steps are critical:

Step 1: Gather and analyze the data and Identify gaps in student learning.

Step 2: Establish student learning goals and align them with school improvement efforts

Step 3: Define instructional strategies that address learning goals

Step 4: Identify what staff need to know and be able to do in order to implement new Strategies

Step 5: Define professional development initiatives and develop an action plan

Step 6: Create a professional development evaluation plan

Step 7: Revisit and Revise as appropriate

Step 1: Gather and analyze the data and identify gaps in student learning.

Gathering and analyzing school data from several sources is the best way to identify trends and patterns in student learning. Data help determine the starting point so gaps in student learning can be identified. Four categories of data are needed: student achievement data, demographic data, program data, and perception data. This data may be collected formally and informally and should be used to provide a clear picture of student achievement and student needs.

Step 2: Set student learning goals align school improvement goals with the identified goals.

Gathering and analyzing data supports identification of areas for improvement. Data analysis helps prioritization of needs and establishment of goals. One to three student goals is ideal. More than that is neither feasible nor “achieve-able.”

Step 3: Define instructional strategies that address learning goals.

Once student learning goals are defined, planners must determine what instructional strategies teachers might use to help students achieve them. A review of the research about how students best learn specific content and a review of existing resources should be first considerations at this step.

Step 4: Identify what staff need to know and be able to do in order to implement new strategies.

Determining what staff need to know focuses professional development initiatives. Effective professional development concentrates on the specific content students will be asked to master, the challenges they are likely to encounter, and the research-based instructional strategies teachers must be able to implement to address those challenges. Where a gap exists between student need and teacher skill and knowledge to meet the need is the place to provide professional development with supporting theory and practice.

Step 5: Define professional development initiatives.

Professional development is not a goal in and of itself. It is the means to achieve a goal – a goal for students or for teachers. The first four steps must be followed before appropriate initiatives can be identified.

Step 6: Create a professional development evaluation plan.

Schools that align professional development with clear student learning goals are better able to evaluate whether certain professional development activities have the planned and desired impact. To collect meaningful evidence, evaluation should result from backmapping or backward planning. Consider: the impact on student learning

outcomes, participants' use of knowledge, organizational support and change, participants' learning, and participants' reactions to the learning experience.

Step 7: Revisit and revise as appropriate.

Professional development planning, like school improvement, is continuous. Data gathered as part of the evaluation process, formative and summative, along with a continuous review of student data should drive future planning.

Summary

Effective professional development cannot be planned separately from a school improvement plan. Professional development functions most effectively when it is embedded into the district or school plan and is seen as the primary strategy for achieving district or school goals. Quality professional development planning can only be achieved after a thorough review of data – student and teacher and when major school initiatives and efforts – school improvement planning, budget planning, teacher performance appraisal, teacher growth plans, and school and district initiatives are aligned.

References

- Cook, C., and Rasmussen, C. (1994). *Framework for designing effective professional development: Change-based inquiry process*. Oak Brook, IL: North Central Regional Educational Laboratory.
- Darling-Hammond, L. (1997). *Doing what matters most: Investing in quality teaching*. Washington, D.C.: NCTAF.
- Darling-Hammond, L., and M. W. McLaughlin. (1995). "Policies That Support Professional Development in an Era of Reform." *Phi Delta Kappan* 76, 8: 597-604.
- DuFour, R. (1998). Why look elsewhere: Improving schools from within. *The School Administrator*, 2(55), 24-28.
- Eastwood, K. and Louis, K. (1992). Restructuring that lasts: Managing the performance dip, *Journal of School Leadership*, 2(2), 213-224.
- Fullan, M. (1993). *Change forces: Probing the depths of educational reform*. London: Falmer Press.
- DuFour, R. (2001). In the right context. *Journal of Staff Development*, Winter 2001 (Vol. 22, No. 1), National Staff Development Council.
- Guskey, T. R., & Sparks, D. (1991). What to consider when evaluating staff development. *Educational Leadership*, 49(3), 73-76.
- Joyce, B. (Ed.). (1990). In B. Joyce (Ed.), *Changing school culture through staff development (1990 ASCD Yearbook)*, pp. xv-xviii. Alexandria, VA: Association for Supervision and Curriculum Development.
- Joyce, B. & Showers, B. (1995). *Student achievement through staff development*. White Plains, NY: Longman Publishers.
- Little, J.W. (1990). The mentor phenomenon and the social organization of teaching. *Review of Research in Education*, 16:297-351.
- Loucks-Horsley, S., Hewson, P., & Stiles, K. (2002). *Designing professional development for teachers of science and mathematics*. Thousand Oaks, CA: Corwin Press.
- Louis, K., Kruse, S., and Raywid, M.A. (1996). Putting teachers at the center of reform. *NASSP Bulletin*, 80(580), 9-21.
- Murphy, M. (2000). Designing staff development with the system in mind. *Results*. National Staff Development Council.
- National Commission on Teaching and America's Future. (1996). *What matters most: Teaching for America's future*. New York: Author. Entire document available online

(requires Adobe Acrobat software):

<http://documents.nctaf.achieve3000.com/WhatMattersMost.pdf>. Executive summary available online: <http://www.zuni.k12.nm.us/las/2ITE/NWREL/What.htm>

National Foundation for the Improvement of Education. (1996). *Teachers take charge of their learning*. Washington, D.C.: Author.

McLaughlin, M. (1995). Creating professional learning communities. Keynote address at the National Staff Development Council Annual Conference.

Newmann, F. and Wehlage, G. (1995). *Successful school restructuring*. Madison, WI: University of Wisconsin.

Rasmussen, C., Hopkins, S., & Fitzpatrick, M. (2004). Our work done well is like the perfect pitch. *Journal of Staff Development*, Winter 2004 (Vol. 25, No. 1)

Smylie, Mark, A. (1992). "Teachers as Leaders and Their Principals: Exploring the Development of New Working Relationships". *Education Administration Quarterly*, Vol. 28, No. 2.

Sparks, D. & Hirsh, S. (1997). *A new vision for staff development*. Oxford, OH: National Staff Development Council.